

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An air cleaner comprising:

a cabinet including an inlet ~~drawing through which~~ a room air of a room is drawn, and an outlet ~~discharging from which~~ a cleaned air is discharged to a the room;

a filter assembly ~~provided inside the cabinet so as to~~ remove dust and smell particles from the room air drawn through the inlet;

a fan ~~provided located~~ inside the cabinet so as to discharge the ~~cleaned room air~~ filtered by the filter assembly to the outlet after drawing the room air;

a sensor assembly ~~provided located~~ inside the cabinet so as to sense composition of the room air drawn through the inlet;

a supplier assembly ~~provided located~~ inside the cabinet so as to provide at least one of ~~insufficient~~ components of the room air to the room air ~~cleaned filtered~~ by the filter assembly;
and

a controller for controlling the supplier assembly on the basis of data regarding the composition of the room air from the sensor assembly to supply the at least one of the components of the room air to the room air filtered by the filter assembly when the sensor assembly senses an insufficient amount of the at least one of the components of the room air drawn through the inlet.

2. (Original) The air cleaner as claimed in claim 1, wherein the sensor assembly senses the composition of the room air before the air passes through the filter assembly.

3. (Original) The air cleaner as claimed in claim 1, wherein the sensor assembly includes at least one of:

- a first sensor measuring an oxygen content of the room air;
- a second sensor measuring a temperature inside the room;
- a third sensor measuring a dust content of the room air; and
- a fourth sensor measuring a gas content of the room air

4. (Currently Amended) The air cleaner as claimed in claim 3, wherein the fourth sensor ~~is provided to~~ is for measure-measuring at least one of carbon monoxide, CO₂ and nitride oxide NO_x.

5. (Currently Amended) The air cleaner as claimed in claim 3, wherein the sensor assembly includes a fifth sensor for measuring the humidity inside the room.

6. (Currently Amended) The air cleaner as claimed in claim 1, wherein the supplier assembly includes a first supplier for providing oxygen to the ~~cleaned-room~~ air filtered by the filter assembly.

7. (Currently Amended) The air cleaner as claimed in claim 6, wherein the supplier assembly includes a second supplier for providing anion to the ~~cleaned-room~~ air filtered by the filter assembly.

8. (Currently Amended) The air cleaner as claimed in claim 6, wherein the supplier assembly includes a third supplier for providing terpene to the cleaned air.

9. (Currently Amended) The air cleaner as claimed in claim 1, further comprising a cooling/heating device ~~provided~~ located inside the cabinet, so as to cool or heat the cleaned air.

10. (Currently Amended) The air cleaner as claimed in claim 9, wherein the cooling/heating device is ~~provided with~~ a thermoelectric module.

11. (Currently Amended) The air cleaner as claimed in claim 10, wherein the thermoelectric module includes:

a first side having an exothermic or endothermic reaction, and being in contact with the ~~cleaned room air~~ filtered by the filter assembly; and

a second side having an opposite reaction to that of the first side, and not being in contact with the ~~cleaned room air~~ filtered by the filter assembly.

12. (Original) The air cleaner as claimed in claim 1, wherein the fan has a variable rotation speed.

13. (Currently Amended) A method of controlling an operation of an air cleaner comprising:

sensing a room air drawn from a room into the inside of a cabinet through an inlet;

~~measuring insufficient~~ at least one of components of the room air and the amount thereof
~~by comparing the sensed data~~ a sensed amount of the at least one of the components from the
sensing step with previously inputted data; and

~~providing~~ supplying the at least one of the ~~insufficient~~ components of the room air to the
room air ~~cleaned~~ filtered by a filter assembly when the sensed amount is less than the previously
inputted data; and

~~guided~~ guiding the room air filtered by a filter assembly and the supplied at least one of
the components of the room air to an outlet by a fan.

14. (Currently Amended) The method as claimed in claim 13, wherein the step of
supplying the at least one of the components of the room air includes supplying at least one of
oxygen and anion ~~is provided to the air cleaned by the filter assembly and guided to the outlet by~~
the fan to the room air filtered by a filter assembly.

15. (Currently Amended) The method as claimed in claim 13, further comprising a step
of ~~providing~~ supplying terpene to the room air ~~cleaned~~ filtered by the filter assembly and ~~guided~~
guiding the terpene to the outlet by the fan.

16. (Currently Amended) The method as claimed in claim 13, further comprising steps
of:

calculating at least one of a dust content and a gas content of the room air ~~on the basis of~~
the sensed data based on a result of the sensing step; and

controlling a rotation speed of the fan ~~on the basis of~~based on at least one of the dust content and the gas content from the calculating step.

17. (Currently Amended) The method as claimed in claim 16, wherein the fan ~~has~~ is operated at a variable rotation speed including:

a high speed when the dust or gas content of the room air is above ~~the~~ a previously inputted range;

a normal speed when the dust or gas content of the room air is within the previously inputted range; and

a low speed when the dust or gas content of the room air is below the previously inputted range.

18. (Currently Amended) The method as claimed in claim 13, further comprising steps of:

~~detecting that~~detecting whether a temperature of the room air is within a ~~summer season~~first temperature range or a ~~winter season~~second temperature range ~~on the basis of~~based on previously inputted temperature data; and

cooling or heating the air ~~cleaned-filtered by the filter assembly and guided to the outlet on the basis of the detected season~~ based on a result of the detecting step.

19. (Currently Amended) The method as claimed in claim 18, wherein, if it is detected that the room air has a temperature corresponding to ~~a summer season~~ the first temperature range,

~~the cleaned air, having cooling the air to a temperature lower than the temperature of the room~~
~~air at a range between 1°C and 3°C, is provided to an indoor room.~~

20. (Currently Amended) The method as claimed in claim 18, wherein, if it is detected that the room air has a temperature corresponding to ~~a winter season~~ the second temperature range, ~~the cleaned air, having heating the air to a temperature higher than the temperature of the room air at a range between 1°C and 3°C, is provided to an indoor room.~~

21. (New) The air cleaner as claimed in claim 1, wherein the filter assembly is located inside the cabinet.

22. (New) The air cleaner as claimed in claim 21, wherein the sensor assembly is located between the inlet and the filter assembly.

23. (New) The air cleaner as claimed in claim 1, wherein the supplier assembly includes an oxygen container for supplying oxygen.

24. (New) The air cleaner as claimed in claim 23, wherein the oxygen container is exchangeable.

25. (New) The air cleaner as claimed in claim 1, wherein the components supplied by the supplier assembly are selected from a group consisting of oxygen, anions and terpene.

26. (New) The air cleaner as claimed in claim 3, wherein the fourth sensor is for detecting an amount of anions in the room air.

27. (New) The method as claimed in claim 14, wherein the step of supplying oxygen includes supplying the oxygen from an oxygen container.

28. (New) The method as claimed in claim 27, wherein the step of supplying the oxygen from the oxygen container includes supplying the oxygen from an exchangeable oxygen container.

29. (New) The method as claimed in claim 13, wherein the components supplied are selected from a group consisting of oxygen, anions and terpene.